

WHAT IS CLAIMED IS:

1. A surface loudspeaker array comprising:
  - a plurality of vertically-splayable speaker racks, wherein each said vertically-splayable speaker rack comprises a plurality of planar magnetic transducers or flat panel speakers;
  - a first attachment device engages at least one of said plurality of vertically-splayable speaker racks in a forward or reversed position, said first attachment device comprises a plurality of suspension points from which said surface loudspeaker array can be suspended;
  - a second attachment device engages another one of said plurality of vertically-splayable speaker racks;
  - a tensioning device connects said first attachment device and said second attachment device;
  - a sound dampening device is attached to a back side of said surface loudspeaker array; and
  - a plurality of hardware secures said plurality of vertically-splayable speaker racks to one another in a serial manner such that when said vertically-splayable speaker racks are connected using said hardware, said vertically-splayable speaker racks are splayed apart to a pre-set angle when said surface loudspeaker array is in an elevated state.
2. A surface loudspeaker array comprising a plurality of vertically-splayable speaker racks that are connected together vertically in a serial manner, wherein each said vertically-splayable speaker racks includes a plurality of planar magnetic transducers or flat panel speakers.
3. A surface loudspeaker array as recited in claim 2 further comprising a first attachment device, wherein said first attachment device is adapted to engage at least one of said vertically-splayable speaker racks.
4. A surface loudspeaker array as recited in claim 3, wherein said first attachment device is adapted to engage said vertically-splayable speaker rack in either a forward or a reversed orientation.

5. A surface loudspeaker array as recited in claim 4, wherein said first attachment device includes a plurality of suspension points from which said surface loudspeaker array can be suspended, said suspension points arrayed in a triangle, and wherein said grid includes at least one attachment point for a tensioning device.

6. A surface loudspeaker array as recited in claim 3, wherein said first attachment device comprises a plurality of suspension points from which said surface loudspeaker array can be suspended.

7. A surface loudspeaker array as recited in claim 6, wherein said plurality of suspension points is arrayed in a triangle.

8. A surface loudspeaker array as recited in claim 3, wherein said first attachment device includes at least one attachment point for a tensioning device.

9. A surface loudspeaker array as recited in claim 3 further comprising a second attachment device, said second attachment device adapted to engage said first attachment device or at least one of said vertically-splayable speaker racks.

10. A surface loudspeaker array as recited in claim 3 further comprising a second attachment device, said second attachment device adapted to engage at least one of said vertically-splayable speaker racks.

11. A surface loudspeaker array as recited in claim 10, wherein said second attachment device includes at least one attachment point for a tensioning device.

12. A surface loudspeaker array as recited in claim 2, wherein said vertically-splayable speaker racks include one row of planar magnetic transducers or flat panel speakers.

13. A surface loudspeaker array as recited in claim 12, wherein said planar magnetic transducers or flat panel speakers are splayed apart horizontally.

14. A surface loudspeaker array as recited in claim 13, wherein said planar magnetic transducers or flat panel speakers are rectangular.

15. A surface loudspeaker array as recited in claim 2, wherein at least one of said vertically-splayable speaker racks comprises a rib, a baffle secured to said rib, and a plurality of planar magnetic transducers or flat panel speakers secured to said baffle.

16. A surface loudspeaker array as recited in claim 15, wherein insulating material is interposed between said rib and said baffle.

17. A surface loudspeaker array as recited in claim 15, wherein insulating material is interposed between said baffle and said planar magnetic transducers or flat panel speakers.

18. A surface loudspeaker array as recited in claim 15, wherein said rib comprises a plurality of end members, said end members being adapted to allow vertical splaying of said vertically-splayable speaker racks.

19. A surface loudspeaker array as recited in claim 2, wherein said adjacent vertically-splayable speaker racks are attached using a plurality of attachment hardware and angle control devices.

20. A surface loudspeaker array as recited in claim 19, wherein said angle control devices comprise a plurality of slots.

21. A surface loudspeaker array as recited in claim 20, wherein at least two of said plurality of slots differ in length.

22. A surface loudspeaker array as recited in claim 21, wherein said slots of differing length correspond to different vertical splay angles of said adjacent vertically-splayable speaker racks.

23. A surface loudspeaker array kit comprising:

- a plurality of vertically-splayable speaker racks, wherein each said vertically-splayable speaker rack comprises a plurality of planar magnetic transducers or flat panel speakers;

- a plurality of hardware, said hardware adapted to attach said vertically-splayable speaker racks to one another, said hardware comprising means for pre-setting a splaying angle;

- a first attachment device, said first attachment device adapted to engage at least one of said vertically-splayable speaker racks in a forward or reversed orientation, said first attachment device comprising a plurality of suspension points from which said surface loudspeaker array can be suspended;

a second attachment device, said second attachment device adapted to engage at least one of said vertically-splayable speaker racks; and

a tensioning device, said tensioning device adapted to engage said first attachment device and said second attachment device.

24. A method for deploying a surface loudspeaker array comprising a plurality of connected vertically-splayable speaker racks, the method comprising:

attaching a first attachment device to a surface array made up of a plurality of vertically-splayable speaker racks;

lifting said surface array using suspension points on said first attachment device; and

attaching a plurality of additional vertically-splayable speaker racks to increase the size of said surface array.

25. A method as recited in claim 24, said method further comprising:

attaching a second attachment device to one of said vertically-splayable speaker racks; and

attaching a tensioning device such that said vertically-splayable racks are splayed apart to substantially pre-set angles.

26. A method of assembling and deploying a surface loudspeaker array comprising a plurality of rows of planar magnetic transducers or flat panel speakers, said method comprising providing a first row of planar magnetic transducers or flat panel speakers, connecting a grid to a first surface of said first row of planar magnetic transducers or flat panel speakers, raising said first row of planar magnetic transducers or flat panel speakers, providing a second row of planar magnetic transducers or flat panel speakers, connecting a first surface of said second row of planar magnetic transducers or flat panel speakers to a second surface of said first row of planar magnetic transducers or flat panel speakers, setting a preselected splay angle between said first row and said second row of planar magnetic transducers or flat panel speakers and raising said first row and said second row of planar magnetic transducers or flat panel speakers such that said first row and said second row of planar magnetic transducers or flat panel speakers can splay to said preselected splay angle.

27. The method of Claim 26 further comprising securing said splayed angle with a tensioning member.

28. A surface loudspeaker array comprising a plurality of planar magnetic transducers or flat panel speakers.

29. A surface loudspeaker array as recited in claim 28, wherein said planar magnetic transducers or flat panel speakers are rectangular.

30. A surface loudspeaker array as recited in claim 28, wherein said plurality of planar magnetic transducers or flat panel speakers are mounted on a speaker rack.

31. A surface loudspeaker array as recited in claim 30, wherein said speaker rack describes a curved surface.

32. A surface loudspeaker array as recited in claim 30, wherein said speaker rack at least partially describes a flat surface.

33. A surface loudspeaker array as recited in claim 30, wherein said planar magnetic transducers or flat panel speakers are characteristically dipole.